Before the

Federal Communications Commission

Washington, D.C. 20554

In the Matter of	)	
Modernizing the E-rate	)	WC Docket No. 13-184
Program for Schools and Libraries	)	

INITIAL COMMENTS BY THE WEST VIRGINIA DEPARTMENT OF EDUCATION

IN RESPONSE TO DA-308

WIRELINE COMPETITION BUREAU PUBLIC NOTICE OF MARCH 6, 20114

SEEKING FOCUSED COMMENT ON E-RATE MODERNIZATION

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I. Introduction

In order to create efficiency in comment filing, the West Virginia Department of Education (WVDE), has polled the public school districts and collected their input in order to culminate the district's input into one solitary document. This document culminates the input from these public school districts, along with the WVDE.

West Virginia is the northernmost southern state situated among the borders of Ohio, Pennsylvania, Virginia and Kentucky. As of 2011 statistics, the population was approximately 1,855,364 and per capita personal income is $34,477.00.[1] Total full-time and part-time employment (number of jobs), according to the US Department of Commerce, was 918,679.[2] This data reveals that only 49.5% of the population was employed either full or part-time. According to the 2013-2014 Percent Needy (all grades) statistics from the WV Department of Education Office of Information Systems, there are 281,703 public K-12 students, a drop from last year's counts and the state's percent needy of students is 55.86%. [3] The most recent E-rate state network application for funding year 2014 had a 76% shared discount for all public K-12 schools in West Virginia.

In general, it is the belief of the WVDE and school districts polled that the E-rate funding cap should be increased substantially in order to meet the goals of high-bandwidth connectivity to every school, along with adequate infrastructure at the LAN level. We also believe that the funding cap should be increased for inflation back to the beginning of the program, immediately, in order to meet the demands. However, even with eligible services cutbacks, the expense of installation of high bandwidth circuits and upgrades to LAN infrastructure for many schools that have gone without E-rate funding for years is believed to exceed current funding cap levels. Feedback from districts was mixed in regards to eligible services cuts, as well as the phase out process. Some felt they would be able to absorb the loss of funding, while others stated that it would be catastrophic to their budgets—some stating that moving to 1 GB per 1,000 students would be impossible with the loss of local and long distance services. Currently, many school districts in West Virginia below the 90% level are using local funding that could go towards classroom computer purchases to improve student to computer ratios or reach 1:1 levels on networking equipment, instead. Resoundingly, applicants stated that a funding cap increase should be permanent in order to allow continued advances in technology and infrastructure within the schools.

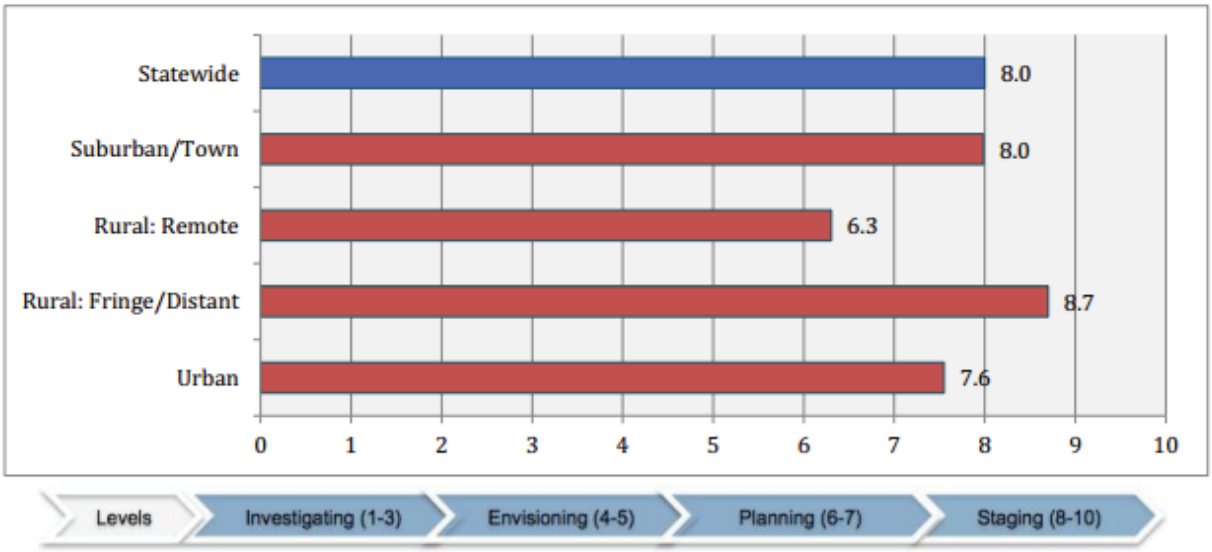
[1] "SA04 State Income and Employment Summary." US Department of Commerce, Bureau of Economic Analysis. Web. 2011. Accessed September 2013.
[2] "SA25N Total full-time and part-time employment by NAICS industry." US Department of Commerce, Bureau of Economic Analysis. Web. 2011. Accessed September 2013.
[3] "Percent Needy (All Grades)." *West Virginia Department of Education.* Web. 6 Jan. 2013. Accessed 4 April 2014. http://wveis.k12.wv.us/documents/2013-2014%20ECO%20DISADVANTAGED%20PWVS725I02%20ALL%20updated%20jan%2014.pdf

School-level infrastructure is still a critical need that must be met each funding year in order to ensure adequate accessibility. To highlight the need for this infrastructure, we reference a recent report sponsored by the Alliance for Excellent Education and conducted by the Metiri Group. This report shows that there is still a great need for infrastructure improvements, but also important is how rural, remote areas experience a great digital divide in not only existing infrastructure, but also in the funding to implement. With that, we highly recommend that the FCC leave in place the Rural/Urban designations within both priority categories in order to ensure that the areas where costs are higher and funding is lesser are not left behind and the digital divide gap is not widened.

As part of this survey, school administrators and teachers were surveyed by the Alliance for Excellent Education. The surveys were completed between April 29, 2013 and July 12, 2013 by each of the school district leadership teams. In total, 1371 teachers and 92 school administrators completed online surveys and all 57 districts (55 county school districts and 2 state school districts) in West Virginia completed the Project 24 Digital Learning Readiness Survey. West Virginia school districts were asked to report on their readiness to address access and infrastructure to accommodate digital learning, among other items. Technology and Infrastructure surveys measured[4]:

- Adequacy of devices; quality and availability
- Robust network infrastructure
- Adequate and responsive support
- Formal cycle for review and replacement

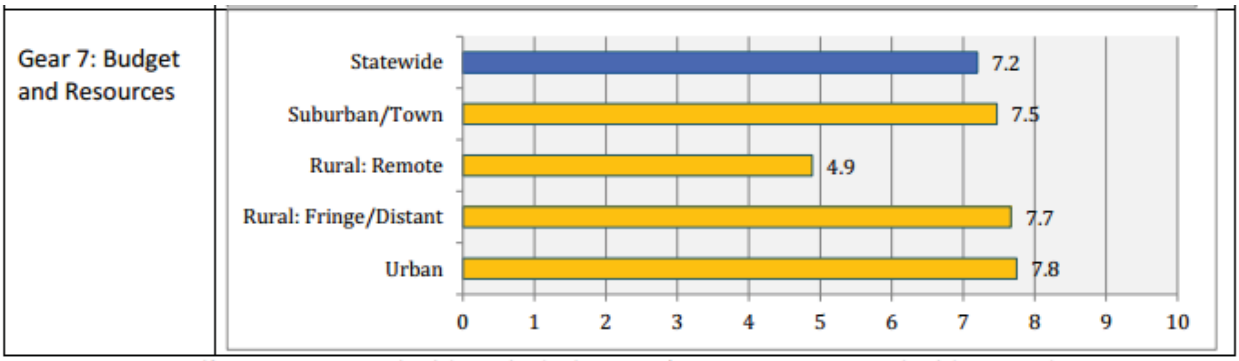
Figure 13: Stage of readiness mean scores for the technology and infrastructure gear, by locale



Source: Project 24 self-assessment. n=57 school district leadership teams (representing 55 county school districts and 2 state school districts)

[4] *West Virginia Digital Learning : Report to the Governor, Legislature, and West Virginia Board of Education*. Metiri Group. Jan. 9 2014. Accessed April 7 2014. http://all4ed.org/wp-content/uploads/2014/01/WVDigitalLearning.pdf (p 23).

As illustrated in the graphic above[5], rural, remote districts are lagging behind in regards to possessing robust networks. One survey participant stated, "Many of our more remote schools need substantial assistance before we are able to adequately promote digital learning."[6] Another survey participated added, "I am excited about where education is going. However, I feel the state is not equipped to handle the drain on the Internet within the school system. Our progress OFTEN has us at the mercy of an Internet system that works slowly and often kicks students off while we are trying to work



Source: Project 24 self-assessment. n=57 school district leadership teams (representing 55 county school districts and 2 state school districts)

on schoolwork. They have issues with submission, other work, and downloads."[7] These rural, remote schools are also located in the districts with smaller budgets as evidenced in the table above.[8]

The consensus was that losing any E-rate funding for any services or facilities would further limit their ability to continue providing advanced, 21st Century opportunities and devices for their students. Where funding is removed, the district will have to suffer a funding loss elsewhere to make up for the E-rate loss. Therefore, either a school won't be able to increase bandwidth to the proposed target levels, staff will be required to be reduced to ensure basic services aren't lost, or students will suffer in the loss of ability to provide end-user devices.

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[5] *West Virginia Digital Learning : Report to the Governor, Legislature, and West Virginia Board of Education.* Metiri Group. Jan. 9 2014. Accessed April 7 2014. http://all4ed.org/wp-content/uploads/2014/01/WVDigitalLearning.pdf (p 24).

[6] *West Virginia Digital Learning : Report to the Governor, Legislature, and West Virginia Board of Education.* Metiri Group. Jan. 9 2014. Accessed April 7 2014. http://all4ed.org/wp-content/uploads/2014/01/WVDigitalLearning.pdf (p 29)

[7] *West Virginia Digital Learning : Report to the Governor, Legislature, and West Virginia Board of Education.* Metiri Group. Jan. 9 2014. Accessed April 7 2014. http://all4ed.org/wp-content/uploads/2014/01/WVDigitalLearning.pdf (p 29).

[8] *West Virginia Digital Learning : Report to the Governor, Legislature, and West Virginia Board of Education.* Metiri Group. Jan. 9 2014. Accessed April 7 2014. http://all4ed.org/wp-content/uploads/2014/01/WVDigitalLearning.pdf (p 69).

Districts are also concerned that changing eligible locations would not only mean a loss of services for students, but also add an unnecessary, additional layer of complexity to the program. There was agreement that broadband should be of the highest priority, however, they were concerned about how to effectively navigate the loss of funding they have come to depend on for the last sixteen years while facing 7.5% budget cuts throughout the last few years.[9]

The budget cuts West Virginia has been facing aren't isolated. According to School Business Daily, states across the nation have cut K-12 funding during the recession.

"Study: Most States Cut K-12 Funding During Recession. [10]
'A new report on state education spending has generated national coverage. The media is covering the report in a fact-based but slightly negative manner. Bloomberg News (9/13, Selway) reports that according to a new study from the Center on Budget and Policy Priorities, "which tracks the impact of government decisions on those with low incomes," at least 34 states are spending less per K-12 student than they were five years ago. Bloomberg reports that the report illustrates the lethargic pace with which states "are replacing funding that was cut because of the recession." The article notes that Oklahoma led the field with a 23% decrease since 2008. Meanwhile, in Alabama and Arizona, "per-pupil spending fell 20 percent and 17 percent, respectively."

'Time (9/12, Rhodan) reports in its "Swampland" blog that according to the report, 13 states have cut per-student funding by at least 10%, and notes that even though New Mexico increased funding by $72 per student this year, this was insufficient to offset prior cuts. The article notes that even though revenues have increased, "education spending has continued to fall in many states."

' Reuters (9/12, Lambert) also covers this story, noting that the report indicates that increases in school funding are not keeping pace with the improving economy. Describing the center as "left-leaning," US News & World Report (9/13, Bidwell) reports that it found that "15 states made reductions to per-student spending in just the last year, despite the fact that many have had increases in tax revenues."

'Several lower-level media outlets are covering this story at the state level. For example, the Lawrence (KS) Journal World (9/12, Rothschild) reports that Kansas' K-12 spending fell more than "all but three other "states since the recession," noting that the report indicated that Kansas' school funding fell by 16.5% since 2008.

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[9] "State of West Virginia Executive Budget General and Lottery Funds: Summary of Appropriate Changes in Governor's Recommended FY 2014 Budget General, Lottery & Excess Lottery Appropriations." *State of West Virginia.* Web. 2013. Accessed 4 April 2014.
http://www.budget.wv.gov/executivebudget/Documents/BudPresent2014.pdf

[10] "Study: Most States Cut K-12 Funding During Recession." Association of School Business Officials International. School Business Daily. Email newsletter. 13 Sept. 2013.

'Other media outlets covering this story at the state level include the Topeka (KS) Capital-Journal (9/12, Carpenter), the Philadelphia Inquirer (9/13, Woodall), the Montgomery (AL) Advertiser (9/12, Lyman), and KNXV-TV Phoenix (9/13, Resendez)."

II. Focused Funding For High-Capacity Broadband (¶ 6)

a. Broadband Deployment ***within*** Schools and Libraries (¶ 8)

i. Scope of Services to Be Funded (¶ 11)

The WVDE believes that it is essential that schools have the ability to expect access to funding for equipment and supporting software, essential to getting high-capacity broadband to the classroom. With mobile generation and technologies advancing, especially 802.11ac wireless technology, it is imperative that schools are able to accommodate the technological growth. As initiatives such as 1:1 student computing and Bring Your Own Device (BYOD) become more popular, the expansion and upgrades of wireless are happening every year. 802.11ac is exciting and excellent, but also comes with a high cost that local school districts may not be able to fund.

We believe that schools should be able to apply for support when they need it and expect to be funded, much like the way that Priority 1 services have been historically anticipated.

We believe that Priority 2 eligible services should include the following: internal wiring, switches and routers, wireless access points, and the software supporting these components. We also strongly believe that, as good stewards of this funding, Priority 1 broadband should be managed in order to avoid purchasing larger pipes to address issues that could be dealt with via less costly means…packet shaping and monitoring services for Wide Area Networks (WANs) could potentially alleviate the need for increased bandwidth by more effectively utilizing the services. Additionally, permitting funding for management, as a service, of state and/or district WANs would increase up-time, ensure bandwidth availability when testing and other high-demand events occur would ensure student-access to a stable network and educational experience, overall.

In line with that, we believe that districts are delving further and further into uncharted territory when it comes to more advanced networks at both the WAN and school Local Area Network (LAN) levels. As a result of lack of expertise or staffing, smaller or more remote schools and/or districts are beginning to see a digital divide in this realm. We feel that allowing support for managed Wi-Fi eligibility would aid these districts in ensuring a functional network with little to no down time adversely affecting student instruction.

Many of our districts were concerned that removing from eligibility cabling un-related to functionality of Wi-Fi access points would impact the time it would take to download files and applications to devices. This is definitely something to consider in the program when we are entering an era where ubiquitous connectivity is the expectation and more schools are working towards the 1:1 student to computer ratio either through school-owned devices or BYOD. With that in mind, we also recommend that the E-rate program permit mobile device management that would allow schools to stagger downloads to devices to avoid network saturation. This would not extend to support of end-user devices, but just the management.

ii. Access to Funding (¶ 13)

1. Five-Year Upgrade Cycle (¶ 14):
   The West Virginia Department of Education is supportive of a five-year upgrade cycle based on current industry standards. We recommended this cycle in our Initial Comments filed with the FCC on September 16, 2013.[11] We do believe that there should be a delay in the implementation of the five year upgrade cycle since most schools have based their planning and budgets on the current 2-in-5 rule and would need to restructure their planning processes.

2. Rotating Eligibility (¶ 17):
   When polled, schools in West Virginia were supportive, overall , of the possibility of rotating eligibility in funding discount bands. This would allow them to prepare and "bank" funding in order to plan ahead for a funding year when they would be guaranteed funding. Their concerns were specific in the current lack of funding and timelines that exist that are deterrents from their participating in Priority 2.

   For example, Barbour County Schools has not participated in Priority 2 services for many years. A district with a current 79% weighted average discount, all schools in the county are a 70% or 80% discount, bands which rarely see funding. Due to this, they haven't invested the time it takes to plan and prepare a request.

   Other counties using E-rate consultants are required to pay a percentage of their E-rate request for the submission of the application.

[11] West Virginia Department of Education, Julia Benincosa Legg, Initial Comments By The West Virginia Department Of Education Related To The E-Rate Notice Of Proposed Rulemaking, September 16, 2013, (122). http://apps.fcc.gov/ecfs/document/view?id=7520943995

Based on this practice, many are hesitant to bother posting applications since it will cost them additional funds that may never come through.

Another example of the impact of the P2 applications is Randolph County in central West Virginia. While they have worked with the WVDE to make applications at the state level on their behalf, their frustration is the length of time from planning to implementation. The last year of funding received by Randolph County, a mostly Community Eligibility Provision (CEP) district with only two 90% school sites out of sixteen, was in 2010 when the FCC rolled back funding to fund all requests. Two 70% sites and two 80% sites received funding. Out of these four sites funded in 2010, two requests were cancelled because the county had to go ahead with purchases after deciding the funding probably wouldn't come through. Because the school district was not the billed entity, they were unable to receive reimbursement on their installations. The other two sites that had been requested in February 2010 weren't funded until September of 2011. Due to the FCC rollback of funds, the state master contract used at the time had since expired and the late funding necessitated a change of contracts. The FCC and USAC had to develop a process since this had never occurred before and after the contract change had been made, service substitutions were necessary. The two schools did not complete installations on their equipment until April 2013 as a result of these delays!

The tedium required to be able to get to installation was excessive in this case, however, it exemplifies another reason schools are hesitant to enter into the E-rate process. Knowing when the funding could be anticipated would be a game changer for schools and districts attempting to properly equip their schools with modernized Wi-Fi.

3. Annual Allocation for Internal Connections (¶ 20):
   With the ever fluctuating costs in technologies, we do not believe a set annual allocation would be an effective means by which schools would have the optimal access to these technologies. Additionally, it seems that the best stewardship for the program would be to allocate funds based on needs. This is especially a concern for smaller schools and districts. A smaller student population would result in a decreased allocation, yet smaller districts, like Wirt County in West Virginia would still have the same costs for basic network requirements necessary to bring Wi-Fi to the classrooms. While they may not have as many

classrooms, the controllers and switches required to support a wireless network aren't cheaper because they are smaller.

4. Other Methods to Prioritize Internal Connections Funding (¶ 23): We believe that funding over multiple years would be a necessity if the FCC is considering a band approach, requiring applications based on school district rather than individual schools. This would allow the school district to complete work in phases rather than scramble to complete installations in one funding year, which would be a logistical nightmare for both financial and implementation reasons.

b. Broadband Deployment ***to*** Schools and Libraries (¶ 24)

i. Scope of Services to Be Funded (¶ 26): The West Virginia Department of Education is supportive in the FCC's goal of ensuring access to high bandwidth to each school. West Virginia's schools are at a great advantage as the majority have received fiber access to all sites via the BTOP program; however, many non-instructional entities are still without fiber, along with any new sites that have been established since BTOP ended. We believe that support from the E-rate program to address high build out costs should be provided either as a one-time up-front cost without limitations, with the understanding that most times these costs are high since the provider must make a business case to install the services to a particular region/area.

Our districts are also highly concerned with the prospect of funding for circuits that increase in the 2017 proposal for 1 GB per 1,000 students. Their primary concern comes on the back of the proposal to eliminate eligibility of legacy services such as voice, long distance, cellular, web hosting and email. With the loss of these services, they have expressed that funding must come from somewhere and something must be sacrificed. Several have suggested potentially increasing the funding percentage when that level is attained in 2017 to offset the amount of funding that they will lose. They have stated that increasing their discounts on broadband could help lighten the load. For example, if the FCC determines that 2017 will be the phase out period for legacy services, they would receive 80% discounts up until the 2017 funding year where an additional 5-10% could be added to broadband to aid in this transition. The districts did not feel a direct correlation between the gain of internal connections funding since these services aren't a yearly expenditure for them and mostly come only once every five years. Additionally, they were completely against the block grant approach since it would negatively impact many districts and the state consortia applications, as well.

West Virginia has already faced 7.5% budget cuts in each of the last two years at both the state and district levels. With the addition of the costs that the school districts have come to count on, the end result will be the loss of something…whether it is the ability to increase broadband speeds, the ability to provide devices to students—let alone 1:1 ratios for each student to have their own device, or staff that would have to be cut to absorbs the lack of funding. Each district has their own means by which they will have to make very difficult and painful choices in the end.

ii. Ensuring Equitable Distribution (¶ 30):

As a recipient of a statewide Broadband Technology Opportunities Program (BTOP) grant, West Virginia elects to remain silent on this issue.

c. Encouraging Cost-Effective Purchasing (¶ 34)

i. Consortium purchasing and bulk buying (¶ 35):

The West Virginia Department of Education has historically been proactive in encouraging consortium purchasing and bulk buying. We have long posted Form 470s whenever possible to permit schools and districts to utilize State Master Contracts for purchasing at the local level and use on local E-rate applications.

Additionally, the WVDE has formed consortia to apply for not only Priority 1 state network applications providing bandwidth to school districts, but also within the Priority 2 services arena. Using legislative funding, the WVDE is able to leverage a state master contract to purchase on behalf of schools, reducing their workloads by allowing our staff to implement on their behalf. This state master contract also allows district applicants to use local funding with the state-posted Form 470 to procure infrastructure. Districts are relieved to have the ability to reduce the amount of demands on them locally by using both of these methods.

The FCC could alleviate one burden that is currently an issue for state master contracts by removing the requirement of the Form 470 posting for all state master contracts and permitting each state's laws to stand in regards to procurement. This has become an issue in West Virginia where other agencies are procuring contracts, but have not informed the WVDE so that they could timely file and sync a Form 470 with the posting of the RFP. Therefore, many of the state master contracts we have in place are not eligible unless the schools each individually file a Form 470 and complete procurement processes that add an additional burden to their workload.

ii. Technology planning (¶ 36):
West Virginia state code requires technology planning for each district. This will not change based on changes in the E-rate program; however, the technology planning requirements for Priority 2, Internal Connections simply becomes another "gotcha" in the E-rate program. The technology plan is simply a formalized documentation of the intent to make this purchase. Continuing the requirement for a technology plan to be in place prior to the E-rate request adds another layer of complexity for applicants. Schools and districts are aware of their needs and limitations in their budgets when making E-rate requests, just the same as when they are formalizing this decision in the form of a technology plan. Since the plan is required to be in place prior to the Form 470, it actually is less beneficial to schools and districts since they aren't fully aware of the true costs until the Form 470 competitive bidding process has been completed.

The requirement to immortalize the decision in the plan just adds an additional unfunded mandate to the district and "one more thing to do." Since the loss of Enhancing Education Through Technology (EETT) many states have no funding to support the planning process and have limited staff. As a result of this, the unfunded mandate of approving technology plans for E-rate purposes is also a burden on the states.

In conclusion, we believe that the elimination of the technology planning requirement for E-rate would prevent the unnecessary denial of applications due to errors made during the planning process that would potentially result in a funding denial for Priority 2, Internal Connections requests.

iii. Data collection and transparency (¶ 37):
While we appreciate the FCC's desires to provide transparency to pricing, even with this information, applicants have difficulty in forcing the hand of the vendors to provide competitive pricing. Even with the lowest corresponding price (LCP) requirements, vendors universally can still come up with reasons why they are offering higher prices to some areas over others. Especially in rural areas with little access to other vendors to provide services, schools are being held hostage to the incumbent vendor and their pricing. Lack of competition keeps pricing and offerings stagnant. Transparency has not yet proven to be beneficial in encouraging pricing to come down. Without the benefit of regulatory requirements for pricing, schools are left with few options.

d. Streamlining the Administrative Process (¶ 38):

In previous filings, the WVDE has been supportive of a portal for E-rate applicants. During this year's funding window, the application process became increasingly frustrating for applicants as the close of the window neared. While it would be ideal for school districts to "just file earlier," that isn't always possible for many reasons. None of these individuals are solely focused on the E-rate application program. With the increasing amount of data required by the FCC during the application process, this was one delay that impacted the applicants. They were required to collect the percentage of classrooms that were wired or wireless that were impacted by the funding request. While that data collection may have made sense to the FCC, it did not make sense to school districts in West Virginia since they felt the question was vague and open to interpretation. Many were unsure as to whether it was accurate to state that the classroom had access to Wi-Fi if it merely had a signal. While some of the classrooms they counted had a Wi-Fi signal, most did not have a dedicated access point per classroom. When looking at online testing, some classrooms actually could require two access points, based on the number of users within the room. Additionally, the age of the devices isn't taken into consideration with this collection, though we strongly advise against adding that into a data collection process. Due to the lack of funding support, most schools have had to piecemeal access point installations so the speeds and ages will vary greatly. Another concern was whether or not these percentages would be weighed to determine eligibility for Priority 2 internal connections in the future.

Another suggestion for technology upgrades is to allow the import of entities that have been entered already with current year's data. For example, with the state network application, the WVDE enters the majority of schools and non-instructional facilities that exist on the state network. The school districts also enter their data. For the most part, this data is identical, yet the laborious task of having to enter this data is required. If the application process permitted the applicant to pull into the application all entities associated with a particular billed entity number, this could streamline state applications and aid in expediting local applications, as well. Additionally, after the application window closes the WVDE cross-checks applicant forms against the state form. This allows us to determine if districts forgot to inform us that a new school was being added or to determine if the district made a mistake on their data. For example, during our cross-checks this year, it was determined that several districts inadvertently copied their block 4 from a previous funding year, and then neglected to update the total enrollment and needy data. Had they been given the option to use the state network's data that had already been entered, or given a notification that there was a difference in the two, it could've greatly avoided the Program Integrity Assurance (PIA) reviews that will now necessitate outreach or Receipt Acknowledgement Letter (RAL) corrections.

Another streamlining process would be to piggyback on the existing ability to import the Block 4 data and allow applicants to import Block 5 data. Many applicants who have multi-year contracts would be able to reduce the amount of time required to enter data in an application and reduce errors by allowing this process. For contracts with voluntary extensions, this data could be updated in the Contract Expiration Date (CED), along with other edits. This could also be used for month-to-month funding requests with the ability to update the Form 470 if the same provider had been selected in the subsequent year.

The documentation process of the Block 5 circuit speeds seemed incredibly duplicative for those applicants filing an online Item 21 attachment where some data was repetitive in both. Merging these two processes and importing some of that information into the Item 21 attachment documentation would be ideal in an upgraded portal. Additionally, ensuring robust servers that supply the online forms ***and*** the Item 21 attachments is critical. During the last days of the application funding window, the inability to access the Item 21 attachment servers was appalling. Applicants were unable to navigate into the Item 21 without the server timing out waiting for the next page to load. The application process became impossible to complete attachments within the window except by submitting paper documentation at one point.

Finally, the suggestion that schools be permitted 18 months to implement Internal Connections would be ideal if the 18 months starts on the date of funding; however, most applicants are unable to start work until funding is made due to the high costs pre-discount. For the most part, due to delays in funding, schools are expected to spend down funds in order to justify the need for additional funds in the next year. Title I would be an example of this.[12] Due to this, they must wait until July 1 of the next year comes around when the funding is again available. This is critical because funding is not permitted to carry over into the next fiscal year. Additionally, if districts were restricted to applying in a funding band for P2 installations covering all sites in the district, we recommend 3 years, total, to complete. We also would recommend that exceptions be permitted for unanticipated delays in construction as well as emergency requests be for school sites that are being constructed unexpectedly due to natural disasters, or as a result of an unanticipated population growth, such as relocation to another area.

III. Reduced Support For Voice Services (¶ 40)

[12] Recipients of federal Title I money may spend down money in the funding cycle for which the funds were granted or a subsequent funding cycle. See 20 U.S.C. § 1225(b). Because of this, districts often work from multiple budgets at the same time, which creates complexity. See generally American Association of School Administrators, School Budgets 101, http://www.aasa.org/uploadedFiles/Policy_and_Advocacy/files/SchoolBudgetBriefFINAL.pdf (last visited April 5, 2014).

a. Reduced E-rate Support for Voice Services (¶ 41):

As previously stated, schools in West Virginia have faced budget cuts over the last few years. This topic has been one of considerate contention since it was first mentioned in the initial Notice of Proposed Rulemaking (NPRM) in July 2013. Many are frightened at the prospect of facing shrinking budgets and facing the possible flash cut of legacy services in the upcoming 2015 funding year. Barbour County Schools is already attempting to cut their budget and are still $250,000 in the red. Facing these cuts, they worry what will be lost along with the E-rate funding. They have already cut cellular services down to just essential personnel. School principals do not get phones from the school board, nor do they get a reimbursement for the use of their personal devices. Money is so tight that the E-rate reimbursements must go back into the general fund. The only funding for technology comes from the state, facing a 7.5% cut for the past few years.

Other school districts, like Randolph County Schools, return funding from E-rate back in to technology. With the loss of Voice/Long Distance, they will face a loss of $50,000 per year in funding they use for infrastructure, hardware, software, etc. That parlays into 125 media tablets that could've been provided to students—now that will instead go into the phone bills for the district.

Resoundingly school districts were concerned about the loss of these services, mainly plain old telephone (POTS), Voice over Internet Protocol (VoIP), including the circuits and other features to support, and long distance. These appear to be the most critical need in regards to the legacy services. Applicants, like Putnam County, were more accepting of removal of the cellular support. Most would rather have the county pay a portion of their personal bill than to have to carry a work and a personal phone. Others simply don't have cellular coverage for this to be an issue for them.

While the state of West Virginia has access to high bandwidth, fiber Ethernet circuits, applicants are still facing significant issues when the prospect of moving solely to VoIP is discussed. Some districts like Lincoln County have access to high bandwidth circuits, but due to their rurality, pay dearly when it comes to phone services. Their local and long distance services make up 30% of all E-rate funding received. They are concerned about a flash cut before other options can be made. A flash cut would result in the district trying to find $40,000-60,000 in the next fiscal year. They currently have a VoIP system at the high school and aren't seeing a great deal of cost-savings as a result, in direct opposition to the FCC's assumption that VoIP will decrease costs and that the cuts won't be a painful impact on the districts.

Other counties can't afford to even start using Voice over IP (VOIP) telephony. For years now, the Clay County School District has attempted to move towards an integrated,

VoIP phone system. The struggle they face as the second most poverty-stricken district in West Virginia is one that is common to our smaller, less affluent districts. They simply cannot afford the VoIP hardware. They attempted to research options and were recently provided a bid that included the hardware required to implement a new system. This would have been three times the cost of their current copper Plain Old Telephone Service (POTS) lines. With the recent closure of a local coal mine reducing local funding and the state cutting educational budgets by 7.5%, they had to make the difficult choice to stick with the antiquated system that they currently use today. According to Treasurer, Kevin Issacs, "We have to give the number for the school and ask callers to the board of education to call the school to be able to reach the person they need to speak with. We aren't even able to forward them, which is terrible customer service." The small district has six schools and forty total phones lines in the county. Each school has 1 fax line and 1 regular phone line, the high school has two phone lines since they are larger. The board office has 18 phone lines. They would have loved to be able to get E-rate support for such a system, but they are currently an 89% school since funding year 2012, when their NSLP discount data was frozen as Community Eligibility Provision (CEP). That means that their discount data hasn't changed with their increasing poverty and unemployment and since 90% has been consistently the only percentage funded, they didn't risk paying consulting fees to apply on the off chance they may be funded for support.

The closest consensus that could be found was a request to lower the funding percentage, but not completely remove these services from eligibility.

b. Alternatives (¶ 45):

One alternative that could potentially address the needs of both the program and applicants could be to eliminate cellular, long distance, POTS (copper lines), web hosting and email, but to permit VoIP services and the required services for providing them. The FCC Chairman, via his blog post, discussed his plan to eliminate legacy services and move towards hosted VoIP services as part of his vision of the *Fourth Network Revolution*.[13] One resolution would be to permit existing high bandwidth circuits to be utilized to provide these services to schools. We also believe that Voice over IP should be maintained as an eligible service, including the equipment required to follow the 1 in 5 replacement plan. We do not believe that the removal of all legacy services will eliminate the lack of funding required within the E-rate program. The change will cause more negatives than benefits to all, but the resulting impact to schools will affect services that they will be able to provide to their students.

[13] Wheeler, Tom. The IP Transition: Starting Now. (Nov. 19, 2013) FCC Blog. http://www.fcc.gov/blog/ip-transition-starting-now

c. Other Issues Related to Voice Services (¶ 50):
We believe that allowing either the necessary gateway equipment to be provided as part of an eligible, hosted VoIP solution or for schools to obtain hardware as part of the Priority 2 services, applying the 1 in 5 rule, would permit schools to eliminate legacy POTS services and still reflect a cost-savings.

We also support waivers for areas that have been unable to access these services for support due to the lack of service provider interest, especially when those services would be cheaper than more costly VoIP. Smaller schools and libraries do not necessitate more extensive, costly systems to get the job done.

d. Easing Administrative Burdens (¶ 54):
In regards to benchmarking costs for providing services, the concern the WVDE is seeing is the lack of competitive pricing on services and/or equipment. Generally, schools are receiving one to no bids for these services in the more rural locations, even when posting a nationally available Form 470. It is critical that schools have access to this equipment and are encouraged to develop Wide Area Networks (WANs) whenever feasible and implement district-level VOIP equipment serving all schools. However, they will still need to have access to another means by which to communicate. In emergency settings like power outages, VoIP does not function and becomes an issue of safety.

IV. Demonstration Projects (¶ 55):
The West Virginia Department of Education would like to participate in a demonstration project, as proposed below, that would be in the best interest of the public and foster the educational process for all students in West Virginia, as well as aiding the FCC's goal of meeting recommendation 11.23 of the National Broadband plan[14] utilizing already existing bandwidth services without creating a greater burden to the fund.

"Online learning can occur anytime, anywhere. Research shows that home use of computers and broadband technologies for learning can be a significant factor in boosting math and reading achievement."[15] "Use of computers and broadband at home for educational purposes has also been shown to motivate students and to increase the relevance of content during school hours—ultimately improving student achievement." [16]

[14] Federal Communications Commission, Connecting America: The National Broadband Plan, 2010, (257). http://download.broadband.gov/plan/national-broadband-plan-chapter-11-education.pdf
[15] Texas Center for Education Research, Evaluation of the Texas Technology Immersion Pilot: Final Outcomes for a Four–Year Study (2004–05 to 2007–08), at vi–vii (2009), http://www.etxtip.info/y4_etxtip_final.pdf.
[16] Gill Valentine et al., Children and Young People's Home Use of ICT for Educ. Purposes: The Impact on Attainment at Key Stages 1–4, at 8–9 (2005), available at http://www.dcsf.gov.uk/research/data/uploadfiles/RR672.pdf; Mizuko Ito et al., Living and Learning with New Media Summary of Findings from the Digital Youth Project 1–3 (2008), available at http://digitalyouth.ischool.berkeley.edu/files/report/digitalyouth-WhitePaper.pdf; Don Passey et al., The Motivational Effect of ICT on Pupils 3 (2004), available at

The FCC cited in its 2010 Broadband Report that "E-rate should support online learning by providing wireless connectivity to portable learning devices so students can engage in learning while not at school. Restricting student access to network services while on school grounds is becoming increasingly indefensible given the new educational opportunities presented by cloud-based desktops, smartphones, tablet PCs, netbooks and other highly portable solutions. Demand for wireless services in education is rapidly growing, and students without off-campus access to online educational services will be increasingly left behind in terms of skills, experience and confidence in their online capabilities."[17]

In Funding Year 2013, the WVDE was approved for over $6.4 million in E-rate discounts on Internet access bandwidth for nearly 930 public school entities. In addition to the state applications, each county applies for E-rate discounts on telecommunications data circuits that connect to the statewide K-12 network. These discounts have provided the high-speed telecommunications lines necessary for the nearly 930 entities for 284,000 students and over 30,000 teachers and staff to access online instructional resources and e-mail.

Our plan is to utilize that bandwidth in a most fiscally responsible manner that will not only provide more services to students, but also better utilize the bandwidth during off hours and weekends. These circuits would also be leveraged to push out bandwidth from the two state network Points of Presence in the north and south, to each school district, down to each school, and then wirelessly broadcast to the homes of staff and students.

We believe that this project would further the public interest by ensuring that West Virginia applicants receive the full amount value from data circuit and Internet access services paid for, in part, by E-rate funding.

Currently, the E-rate rules presume that services used on school premises are serving an educational purpose.[18] The E-rate program also currently supports wireless Internet access on school grounds.[19] However, historically, this connectivity has been limited to the school campus with the exception of the Learning on the Go (EDU2011) pilot.[20] At the time, this pilot was intended to investigate the potential for expanding the E-rate program for home

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http://www.dcsf.gov.uk/research/data/uploadfiles/RR523new.pdf; Becta, Minister's Taskforce on Home Access to Tech., Extending Opportunity 4 (2008), available at http://partners.becta.org.uk/upload-dir/downloads/page_documents/partners/home_access_report.pdf.

[17] Federal Communications Commission, Connecting America: The National Broadband Plan, 2010, (257). http://download.broadband.gov/plan/national-broadband-plan-chapter-11-education.pdf

[18] 47 C.F.R. § 54.500(b). But see supra n. 90 (identifying specific exceptions for offsite cost allocation).

[19] See Funding Year 2014 ESL at page 5.

[20] Federal Communications Commission, Sixth Report and Order, 2010, (22, section 5, para 41-50). http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-175A1.pdf

access of students. However, this methodology used an older conveyance for these services that was duplicative during school hours while students attended class when the entity was already the recipient of broadband services.

Current rules still maintain that any off-site utilization must be cost-allocated from the applicant's E-rate application.[21] With this model, the same bandwidth that is left behind at the school, in most cases, would continue to be available for students and staff to encourage anytime-anywhere learning and extend the classroom via the whitespace.

Another historic order that the West Virginia Department of Education worked to bring forth allowed students at schools where they were required to remain in dormitories, like our West Virginia School for the Deaf and Blind, to obtain access to the dormitory, another formerly ineligible service. We argued that our students did not have the luxury of having a parent to transport them to the public library or local eating establishment for Wi-Fi. The FCC brought forth a waiver of that rule as part of the Sixth Report and Order and set into motion a game-changing order that now allows these students to complete homework and research well beyond the school bell. In that same vein, especially within rural West Virginia, our students face the challenges of not having afterschool access to transportation to visit the library. These students would be afforded the opportunity to have learning become ubiquitous through this demonstration project opportunity.

We believe it would be ideal to expand funding to permit the broadcast hardware and support required in order to meet this goal via existing means and thereby avoiding duplication of services. We request support and rule waivers in order to study the impact and costs associated with this project. We request that West Virginia be permitted to provide access to the E-rated connectivity services for use to the homes of the staff and students in West Virginia. This opportunity could also begin before students get home to provide access on the school bus, utilizing the same wireless signal sent to the homes - leveraging the pre-existing, E-rated bandwidth and avoiding duplication of efforts and services. West Virginia school districts are already launching programs to enable students to have untethered access to their content and materials. A new program launching soon will afford students access to electronic files, video or audio conferencing with their teachers, cloud storage and chat among their classmates and teachers from any location. The possibilities for a snow day become limitless--an important factor since many West Virginia schools missed in excess of 20 instructional days this school year!

[21] See USAC website, Schools and Libraries, Cost Allocation Guidelines for Products and Services, available at http://www.usac.org/sl/applicants/step06/cost-allocation-guidelines-products-services.aspx (last visited Sept. 14, 2010); see also Funding Year 2014 ESL at 24 (homes or other non-school or non-library sites are provided as examples of ineligible locations) and 5 (explanation of cost allocation).

In the July 2013 Notice for Proposed Rulemaking, the FCC inquired regarding Wireless Community Hotspots in order to extend the reach of E-rate supported services. While we agreed with the prospect of our students having greater access to services already funded by E-rate, matched with our state and district funds, our concern was that students' connectivity would be impacted by the community at-large intercepting bandwidth in the process. In the comments filed by the West Virginia State E-rate coordinator,[22] we expressed our concerns and reservations about opening our bandwidth up to the general public due to the concerns for the safety of the network, impact on school bandwidth, costs for additional equipment required and the costs for staffing to support the community's use of the service. Additionally, allowing access to unknown users who may potentially limit bandwidth available for our students was of utmost concern. Through our proposed plan, we would take the FCC's broadband plan to the next level and further close the existing broadband availability gap for our students by broadcasting broadband signals to their homes using existing whitespace.

We also recommended that this FCC proposal be limited to a pilot project in order to study the impact and best way to implement. In 2010, the West Virginia State E-rate Coordinator encouraged the Commission to extend the use of the school network in order to allow the formerly underutilized evenings, weekends and holidays' bandwidth to be accessed by the community. [23]

West Virginia believes that we have the proposal that will fulfill the next generation vision for this project that began with working with the FCC in order to allow greater access and utilization of E-rated funds to the community through the Community Spots Waiver that was formalized in the FCC's *Sixth Report and Order*. [24] This new proposal will bring to fruition the next logical step, which is removing the barrier of access to the Internet for student learning after the school bell rings using existing bandwidth.

In this proposal, our intention is to still permit utilization by the community, but limiting the access to those approved devices that serve students as the priority. Services would still remain filtered since our state network filtering occurs at our point of presence. In this way,

[22] West Virginia Department of Education, Julia Benincosa Legg, Initial Comments By The West Virginia Department Of Education Related To The E-Rate Notice Of Proposed Rulemaking, September 16, 2013, (118-120). http://apps.fcc.gov/ecfs/document/view?id=7520943995; See also West Virginia Department of Education, Julia Benincosa Legg, Reply Comments By The West Virginia Department Of Education Related To The E-Rate Notice Of Proposed Rulemaking, November 8, 2013, (6-7). http://apps.fcc.gov/ecfs/document/view?id=7520957148

[23] See Letter from Julia Benincosa, West Virginia Department of Education, to Marlene H. Dortch, Secretary, Federal Communications Commission, CC Docket No. 02-6 (dated Aug. 2, 2010).

[24] Federal Communications Commission, Sixth Report and Order, 2010, (16-18). http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-175A1.pdf

access will not be limited to school hours or physical space. Additionally, students would be able to mitigate impact to instruction due to time away from school caused by snow days, illness or other issues that may prevent them from being in class on a particular day. We believe that it is essential to encourage lifelong learning and that learning doesn't end at the classroom doorway at the end of the day. This opportunity will afford all students and staff to make learning more student-centered and expand learning beyond the classroom. The concern for additional demand on the network during the school day would be tied to a unique connection to each student.

In order for the West Virginia Department of Education to better serve the community with state and federal funding and for students to benefit from already existing services, the WVDE requests that this rule limiting access to telecommunications services funded by E-rate to the school district sites be waived for all West Virginia applicants in order to provide wireless Internet services to the homes of staff and students. Good cause exists for waiving the rule limiting home access in order to meet existing broadband plan goals, utilize currently unutilized bandwidth during hours schools are not in session, and limiting the access to homes where staff and students reside, thus ensuring our students' education is given the highest priority and not limited by the greater community attempting to access Internet bandwidth. This proposal will ensure that West Virginia schools receive the full benefit of the E-rate funding, and it also allows for 24/7 learning. We believe that the granting of the West Virginia Department of Education funding under this demonstration project would afford the benefit of ensuring that the millions of dollars in discounts received by West Virginia are utilized to the utmost degree and keeps the access provided focused on those recipients targeted within the E-rate program.

Currently, our plans include Clay Battle High School, in the rural Blacksville area of Monongalia County near the West Virginia/Pennsylvania border. A limited study of students in the current junior class, rising seniors in the 2014-2015 funding year, would be selected for broadcast to accessible homes.

A second pilot will be in urban Cabell County, West Virginia, home of Huntington, where two to three school bus routes will be equipped with devices to provide whitespace wireless access to students via the existing bandwidth during their bus rides to and from school.

We request that the FCC permit us a waiver to proceed with these pilots that would permit us to study these uses without requirement of cost-allocation of the use. This use would be ancillary to existing circuits, already available to community use during off-hours. Our request would be to permit the off-campus utilization of this bandwidth service.

Additionally, we would be interested in funding for equipment to expand these pilots statewide, which could assist the FCC in determining the capacity for any state or large

school district to provide services after hours to the homes of students and staff - what costs are involved as well as a set of best-practices that will be available to others, as a result. We should have more information regarding costs by the April 21st reply comment period and plan to address that information in our reply comments.

V. Conclusion

In conclusion, the West Virginia Department of Education is dedicated to ensuring our students, staff and districts have every opportunity available to them in order to ensure the highest quality education available. Technology, telecommunications and infrastructure are important pieces of the puzzle that combine to provide them the ideal environment. We applaud the FCC in their motivation to reform a complex program heavy in minutia and are willing to actively participate in this process to engage in productive dialogue and results. While we understand that some eligible services must fall away in order to afford the integral necessities, there are still some that are critical to instruction and while it would be ideal to be able to completely move into the next generation of telecommunications through VoIP, the sad truth is we just aren't quite there, yet…

We welcome any questions or interaction the FCC deems necessary in the process of this public notice and impending FCC Order and are open to conversations, if so deemed necessary. Thank you for your consideration.

/s/ Julia Benincosa Legg
State E-rate Coordinator
Office of Instructional Technology
West Virginia Department of Education

April 7, 2014